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412

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,964	04/11/2002	Bruce M. Paterson	11613.33USWO	6025
23552	7590	10/04/2004	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			SWOPE, SHERIDAN	
			ART UNIT	PAPER NUMBER

1652

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,964

Applicant(s)

PATERSON ET AL.

Examiner

Sheridan L. Swope

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-9 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 1652

DETAILED ACTION

Claims 1-9 are pending

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-5, drawn to CDK4 binding proteins.

Group II, claims 6 and 7, drawn to polynucleotides encoding CDK4 binding proteins.

Group III, claim 8, drawn to a method of inhibiting cell growth by administering a CDK4 binding protein.

Group IV, claim 9, drawn to a method of inhibiting the activity of a CDK4.

For each of inventions I-IV above, restriction to one of the following sequences is also required, wherein Applicants must elected the residue at positions Xaa₁- Xaa₆. Therefore, election is required of one of Inventions I-IV and one of the inventions selected from the group consisting of sequences comprising Tyr-Ser-Gly-Pro-Pro-Xaa₁-Xaa₂-Xaa₃-Arg-Arg- Xaa₄-Asn-Xaa₅-Tyr- Xaa₆, wherein:

- (A). Xaa₁ is Cys or Ser;
- (B). Xaa₂ is Ser or Gly;
- (C). Xaa₃ is Ser, Ala, or Pro;
- (D). Xaa₄ is Arg or Gln;
- (E). Xaa₅ is Ser, Cys, or Gly; and

Art Unit: 1652

(F). Xaa₆ is Asp or Glu.

The inventions listed as Groups I-IV and the inventions represented by the sequences of (A)-(F) do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature for the following reasons. The technical feature linking Groups I- IV and the inventions represented by the sequences of (A)-(F) appears to be that they all relate to CDK4 binding proteins comprising the sequence Tyr-Ser-Gly-Pro-Pro-Xaa₁-Xaa₂-Xaa₃-Arg-Arg- Xaa₄-Asn- Xaa₅-Tyr- Xaa₆, wherein Xaa₁ is Cys or Ser, Xaa₂ is Ser or Gly, Xaa₃ is Ser, Ala, or Protein, Xaa₄ is Arg or Gln, Xaa₅ is Ser, Cys, or Gly, and Xaa₆ is Asp or Glu. However, Dechesne et al, 1995 teach a protein, MyoD, comprising the sequence Tyr-Ser-Gly-Pro-Pro-Cys-Ser-Ser-Arg-Arg-Arg-Asn- Ser-Tyr- Asp (residues 189-203) and said protein is known to bind CDK4 (Zhang et al, 1999; Fig 1).

Therefore Groups I-IV and the inventions represented by the sequences of (A)-(F) share no special technical feature as defined by PCT Rule 13.2, as it does not define a contribution over the prior art. Furthermore, the products of Groups I and II and the inventions represented by the sequences of (A)-(F) do not share a special common structural or functional feature while, the methods of Groups III and IV do not use the same reagents or produce the same results. In addition, the methods of Groups III and IV not do comprise all of the methods for making or using the products of Groups I and II and the inventions represented by the sequences of (A)-(F). Accordingly, Groups I-IV and the inventions represented by the sequences of (A)-(F) are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

Art Unit: 1652

Searching more than one invention would represent a burden on the Office for the following reasons. The search of Group II would not encompass a search for Group I, which would include searching the prior art for teachings of the purified protein. In addition, a search for Group I, class 530, subclass 350, would not encompass a search for Invention II, class 536, subclass 226. Thus, a search of either Invention I or II would not encompass a search for the other invention and searching both inventions would be a burden on the Office. A search for the methods of either Inventions III or IV would not encompass a search for the other method because the methods do not share a special technical feature of steps and products used, or results produced. Thus, the search for either Invention III or IV would not encompass the search for the other invention and searching both inventions would be a burden on the Office. A search for the polynucleotide of Group II would not overlap a search for the methods of Group III or IV; therefore, searching Group II with Group III or IV would be a burden on the Office. A search for the polypeptide of Group I would not encompass a search for the methods of Group III or IV; therefore, a search of Group I with either Group III or IV would be a burden on the Office.

Restriction between product and process claims has been required. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the Official Gazette notice dated March 26, 1996 (1184 O.G. 86; see also M.P.E.P. 821.04, *In re Ochiai*, and *In re Brouwer*). Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right, if the amendment is presented prior to final rejection or allowance, whichever is earlier. Withdrawn process claims that are not commensurate in scope

Art Unit: 1652


with an allowed product claim will not be rejoined. To be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheridan L. Swope whose telephone number is 571-272-0943. The examiner can normally be reached on M-F; 9:30-6 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy can be reached on 571-272-0928. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


AV 1652